

Commission on Computational Physics (C20)

Report 2011-2012

The present IUPAP Commission on Computational Physics (C20) was appointed at the IUPAP General Assembly in November, 2011. Hence, it has by now been active for 10 months. Alex Hansen (Norway) and Joan Adler (Israel) act as chair and vice chair respectively. The secretary is Hai-Qing Lin (China). Of the members, 2 are from the Americas, 3 from Asia, 3 from Europe and one from Oceania. The commission will meet for the first time in Kobe, Japan in October during CCP2012 (see below).

Conferences:

The Conferences on Computational Physics (CCP) form an international series of conferences which has served as a lively forum for computational physicists from around the world. Since 1998, the CCP conferences rotate yearly between the European/African continents, the Asian/Oceanian continents and the Americas. In 1997, the CCP conference series succeeded the EPS-APS Joint Conferences "Physics Computing" (PC) organized annually since 1989.

CCP2012 will be held in Kobe, Japan on October 14-18 (<http://www.ile.osaka-u.ac.jp/CCP2012/>). This will be the 24th CCP conference. There are 450 registered attendees. It is chaired by Professor Hideaki Takabe of Osaka University. The conference spans the entire field of computational physics, from astrophysics to nanoscience.

The organization of CCP2013 is also well underway. It will be chaired by Professor Lev Shchur of the Landau Institute (Chernogolovka) and will be held at the Russian Academy of Sciences in Moscow. The dates are August 20-24, 2013.

Professor Fereydoon Family of Emory University in Atlanta, Georgia, has signaled a wish to organize CCP2014 in Atlanta.

We have received a bid for CCP2015 from Professors Sitangshu Bikas Santra of the Indian Institute of Technology at Guwahati and Purusattam Ray of the Institute for Mathematical Sciences in Chennai. They suggest the IIT campus in Guwahati in the state of Assam (India) as venue.

Young Scientist Prize:

The prize was for 2012 awarded to Professor *Robert Melko* of the University of Waterloo, Canada

for his innovative and deep achievements in developing quantum Monte Carlo methods for quantum information theory and condensed matter physics.

We received ten nominations after the deadline had been changed from April 1st to June 30. The quality of the candidates was generally very high.

Since the assembly of a nomination requires a non-negligible amount of work, we will for the future carry over nominations from year to year asking the nominators to update their nominations.

2nd African School on Electronic Structure Methods and Applications (ASESMA 2012)

(<http://asesma.ictp.it/>) was organized in Eldoret, Kenya from May 28 to June 8. The organizers were Professors G. Amolo, N. Makau (local organizers), N. Chetty (Pretoria), R. Martin (UIUC/Stanford) and S. Scandolo (ICTP). The ASESMA series is planned on a biennial basis from 2010 to 2020. The first one was held at Muizenberg, Cape Town, South Africa. The schools provide an introduction to the theory of electronic structure, with an emphasis on the computational methods for practical calculations. Two IUPAP commissions are involved in sponsorship and organization of these schools: C13 and C20.

Trondheim, October 2, 2012

A handwritten signature in blue ink that reads "Alex Hansen". The signature is written in a cursive style and is centered on a light-colored rectangular background.

Alex Hansen

Chair of C20